

U.S. Patent Application Serial No. 10/656,003
Reply to Office Action dated February 24, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Original) A method for treating fluid body waste material, comprising the steps of:

pumping fluid waste material from a storage facility to a distribution chamber;

delivering said material over a first vibrating screen, to partially separate solids from liquids;

discharging retained material on said first screen to a storage container;

discharging partially cleansed liquid through said first screen into a holding tank;

pumping liquid from said holding tank to at least one cyclone separator;

discharging a first stream from said cyclone separator, containing larger particles on to a second vibrating screen, to further separate solids from liquids, and delivering a second stream from said cyclone separator, comprising substantially cleansed liquid, to a trough;

discharging a first stream of liquid from said trough to said holding tank, to form a loop treatment cycle; and

discharging a second stream of liquid from said trough back to said storage facility.
2. (Original) A method as claimed in claim 1, wherein said second stream from said trough is less than said first stream.

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3. (Original) A method as claimed in claim 1 including pumping liquid from said holding tank to a manifold and feeding said material from said manifold to said at least one cyclone separator.
4. (Original) A method as claimed in claim 3, including feeding said material from said manifold to a plurality of cyclone separators.
5. (Original) A method as claimed in claim 4, including spraying a portion of said liquid in said manifold into said distribution chamber.
6. (Original) A method as claimed in claim 3, including controlling the flow of liquid from said manifold to said at least one cyclone separator.
7. (Original) A method as claimed in claim 1, including controlling the flow of liquid from said trough to said storage facility.
8. (Original) A method as claimed in claim 1, including controlling the pumping of said waste material from said storage facility to said distribution chamber.
9. (Original) A method as claimed in claim 3, including by-passing a portion of liquid pumped from said holding tank to said manifold back to said holding tank to agitate contents of said holding tank.
10. (Original) A method as claimed in claim 1, including feeding material pumped from said storage facility to a first vibrating weir plate prior to delivery to said first vibrating screen.
11. (Original) A method as claimed in claim 1, including discharging said first stream from said cyclone prior to discharging said stream on to said second vibrating screen.
12. (Original) A method as claimed in claim 1, wherein at least one of said vibrating screens is inclined.

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13. (Original) A method as claimed in claim 12, wherein said vibrating screens are inclined at an angle of between $+5^{\circ}$ and -5° .
14. (Original) A method as claimed in claim 13, wherein said vibrating screens are inclined at an angle of -3° .
15. (Original) A method as claimed in claim 1, wherein said first vibrating screen has a mesh size from 10 to 300 and said second vibrating screen has a mesh size from 11 to 400, the mesh size of said second vibrating screen being finer than the mesh size of said first vibrating screen.
16. (Original) A method as claimed in claim 15, wherein said first vibrating screen has a mesh size from 50 to 200 and said second vibrating screen has a mesh size from 100 to 400.
17. (Original) A method as claimed in claim 16, wherein said first vibrating screen has a mesh size of 75 and said second vibrating screen has a mesh size of 90.
18. (Original) A method as claimed in claim 1, including agitating the waste material in said storage facility.
19. (Currently Amended) Apparatus for treating fluid body waste material, comprising:
- a submersible pump for pumping waste material from a storage material;
 - a distribution chamber;
 - a hose for connecting said pump to said distribution chamber;
 - a first vibrating screen;
 - an outlet in said distribution chamber for delivery of said waste material on to said first vibrating screen;
 - a discharge outlet from said first vibrating screen for discharge of retained solids;

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a holding tank for reception of partially cleansed water passing through said first vibrating screen;

at least one cyclone separator;

a pump for pumping liquid from said holding tank to said at least one cyclone separator;

a second vibrating screen;

a first outlet in said at least one cyclone separator for discharge of a first stream containing larger particles on to said second ~~inclined~~ vibrating screen;

a trough;

a second outlet in said at least one ~~cylone~~ cyclone separator for delivery of a second stream comprising substantially clean liquid to said trough;

a first outlet in said trough for discharge of a first stream from said trough to said holding tank; and

a second outlet in said trough for delivery of a second stream from said trough to said storage facility.

20. (Original) Apparatus as claimed in claim 19, wherein at least one of said vibrating screens is inclined.